



Mechanical Engineering A.S. Degree

PART TIME

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2024-25

GE Pattern: local AA/AS

Total Units: 66

First Year

Semester 1

9 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
RC	ENGR 300	Introduction to Engineering	1	
GE	ENGWR 300 / 480 ^H	College Composition	3	IIa WC
GE		any Area IIIb (Life Development Skills) course	2	IIIb
GE		any Area I (Humanities) course	3	I

Semester 2

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 400	Calculus I	5	IIb MC
GE		any Area Vb (Social & Behavioral Sciences) course	3	Vb

Second Year

Semester 3

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 401	Calculus II	5	
Req	ENGR 312	Engineering Graphics	3	

Semester 4

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	MATH 402	Calculus III	5	
GE		any Area Va (American Institutions) course	3	Va

Third Year

Semester 5

9 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	CHEM 400	General Chemistry I	5	IV
Req	MATH 420	Differential Equations	4	

Semester 6

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
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4 YEARS

TRANSFER PATH

Potential Transfer Majors:

- Mechanical Engineering B.S.

This map prepares students for the A.S. degree. Additional major requirements and general education courses are needed for transfer. See a counselor to create an educational plan that prepares you to transfer.

Potential Career/Options After Completing a Bachelor's Degree:

- automotive engineer
- heating and cooling systems (HVAC) engineer
- robotics engineer
- manufacturing engineer

Advising Notes:

- Students can substitute ESLW 340 for ENGWR 300/480.
- This map starts with MATH 400 and CHEM 400, which have prerequisites. Please see a counselor to add in prerequisite courses, if needed.

Other Notes to Students Preparing to Transfer:

- Additional coursework may be required. Work with a counselor and ASSIST.ORG to determine the courses needed for your goals.

Honors Courses (H):

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	PHYS 410	Mechanics of Solids and Fluids	5	
GE		any Area VI (Ethnic/Multicultural Studies) course	3	VI

Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an Honors Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.

Fourth Year

Semester 7

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	PHYS 421	Electricity and Magnetism	4	
Req	ENGR 420	Statics	3	
GE		any Area IIIa (Physical Education) course	1	IIIa

Semester 8

8 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	ENGR 401	Introduction to Electrical Circuits and Devices	4	
Req	ENGR 412	Properties of Materials	4	

EXPLANATION OF CATEGORIES

RC	Recommended Course	A course that is not part of this program but is included in its roadmap
GE	General Education	A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement
Req	Required Core	A course that is required for this program

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency

WC = Writing Competency